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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,884	09/18/2001	Michael Benz	112740-224	2823

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EXAMINER

SCHEIBEL, ROBERT C

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/857,884

Applicant(s)

BENZ ET AL.

Examiner

Robert C. Scheibel

Art Unit

2666

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because in figure 7, the value in the last row of the first column should be changed from 64 kbps to 48 kbps. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

Specification

2. The disclosure is objected to because of the following informalities:
- In line 27 of page 6, the specification discusses "a multiplicity of mobile switching centers" in figure 1. Figure 1 only shows 1 mobile switching center (MSC).
 - Line 1 of page 7 discusses RNM devices which are not shown in figure 1.
- Appropriate correction is required.
3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Method for Implicitly Signaling Used Common Channels in a Radio Communication System".

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

- the following limitation of claim 14 must be supported in the specification
“wherein a largest possible number of channels are allocated as the common channels, with at least one channel per connection being allocated exclusively”.
- the following limitation of claim 17 must be supported in the specification
“wherein, for a subset of the data rates, the in-band signaling can be used to select a plurality of combinations of channels for a connection”. Alternatively, modifying the claim language as follows will also overcome this rejection:
“wherein, for a subset of the data rates, the in-band signaling can be used to select **from** a plurality of combinations of channels for a connection”.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 12 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase “with each of the combination” in claim 12 is indefinite. The removal of this phrase would render the claim definite. Claim 19 is rejected as it is dependent on claim 12.

Claim Rejections - 35 USC § 102

Art Unit: 2666

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims **11, 13-18, and 20** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 5,859,840 to Tiedemann, et al.

Regarding claims **11 and 20**, Tiedemann discloses the step of distinguishing channels using individual spread codes in lines 28-32 of column 2. The further limitation of this step that at least on common channel allocated to a plurality of connections is present is disclosed by Tiedemann in the pool of common channels of lines 34-39 of column 2. The step of signaling in-band a subsequently valid allocation of the common channel(s) (claim 11) and the signaling device for performing this step (claim 20) is disclosed in lines 44-46 of column 5 of Tiedemann. The further limitation that this be done using a data rate allocated to the connection is disclosed in lines 22-27 of column 5 and lines 10-17 of column 6. These passages describe how the additional channels are signaled in the channel assignment message by using only a few bits to identify which group of channels from the set of possible channels has been assigned. Lines 25-27 of column 5 indicate that in a particular embodiment, the pre-defined sets of additional channels consist of a different number of channels. Thus, the bits sent in the channel assignment message indicate the data rate in a very similar manner to the

method described in the present specification for this limitation. The cell controller is the signaling device. The limitation of agreeing upon a relationship between the allocated data rate and the at least on common channel to be used in a separate signaling channel (claim 11) and the signaling device for performing this step (claim 20) is disclosed in lines 10-17 of column 6. The separate signaling channel is used during call set-up. Tiedemann discloses the step of transmitting the data based on the allocation (claim 11) and the transmitter for performing this step (claim 20) in lines 25-32 of column 6. The transmitter is element 34 of figure 2.

Regarding claim **13**, Tiedemann discloses the limitation that the transmission of data occurs in the downlink direction in lines 55-59 of column 3.

Regarding claim **14**, Tiedemann discloses the limitation that at least one channel per connection is allocated exclusively in lines 34-35 of column 2. Lines 36-39 of column 2 imply that the pool of common channels contains the remaining channels not used as dedicated channels to each user.

Regarding claim **15**, the limitation that the common channels are allocated for connections having a high maximum data rate is disclosed throughout Tiedemann. It is clear that the use of the common channels is for high data rate channels as indicated, for example, in the abstract and in lines 40-45 of column 2.

Regarding claim **16**, the limitation that the common channels are allocated for connections having high data rate dynamics is disclosed in Tiedemann in the variable rate data transmission discussed in lines 38-50 of column 8.

Regarding claim 17, Tiedemann discloses the limitation that the in-band signaling can be used to select from a plurality of combinations for a subset of the data rates in lines 22-27 of column 5. These sets can clearly be comprised of combinations which result in the same data rate. Specifically, the statement that in an improved embodiment, the pre-defined sets consist of different numbers of additional channels implies that the previous embodiment consisted of a plurality of combinations (sets) with the same number of channels and therefore the same data rate.

Regarding claim 18, Tiedemann discloses the limitation that the relationship between allocated the data rate and the common channels is agreed upon at connection setup in lines 10-12 of column 6.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

Art Unit: 2666

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims **12 and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,859,840 to Tiedemann, et al in view of Applicant's admitted prior art.

Regarding claims **12 and 19**, Tiedemann discloses all the limitations of the parent claim 11 as described in the rejection above.

Tiedemann does not disclose expressly the limitations of claim 12 of a combination of data for a plurality of services being transmitted within at least one channel and the data rate and the allocation of the common channels being signaled using TFCI values. Tiedemann also does not disclose expressly the limitation of claim 19 of a partial information item being used to signal in-band the data rates.

Regarding claim 12, applicant's admitted prior art discloses the limitation of a plurality of services being transmitted within at least one channel in lines 15-16 of page 2 of the present application. It is well known to transmit data from multiple services in parallel in the UMTS mobile radio system. Applicant's prior art also discloses the limitation of sending the data rate using the TFCI parameter. The teaching of Tiedemann as described above, correlates the value of the in-band parameter (in this case the TFCI parameter) with the specific channel set or combination.

Regarding claim 19, the TFCI is a partial information item in that it does not directly indicate the specific channel assignments, but only indicates an index value which corresponds to a set of channels according to the mapping information exchanged at call setup.

Tiedemann and Applicant's prior art are analogous art because they are from the same field of endeavor of efficiently sending high rate data over wireless systems.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Tiedemann to send the data from multiple services using the allocated channel. It would also have been obvious to a person of ordinary skill in the art to modify Tiedemann to implement the channel assignment message using the TFCI parameter as taught in the applicant's prior art. The motivation for doing so would have been to apply Tiedemann's invention to UMTS.

Therefore, it would have been obvious to combine Applicant's prior art with Tiedemann for the benefit of applying Tiedemann's invention to UMTS to obtain the invention as specified in claim 12.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert C. Scheibel whose telephone number is 703-305-9062. The examiner can normally be reached on 6:30-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on 703-308-5463. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2666

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LCS 3-19-04
Robert C. Scheibel
Examiner
Art Unit 2666

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